PATENT

DOCKET NO.: FCI-2456/C2344 **Application No.:** 09/661,547

Office Action Dated: February 14, 2003

The below listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1 through 32 were previously canceled.

33. (currently amended) An electrical connector assembly adapted for forming a mechanical and an electrical connection between a component and a substrate and a component having an array of fusible elements thereon, absorbing differences in CTE between said component and said substrate, said connector assembly comprising:

a first connector half, said first connector half having first and second surfaces, said first surface having an array of reflowable connecting elements thereon for electrical and mechanical connection to mating corresponding mating elements already on said the substrate, said second surface having a first array of frictional connecting elements, said reflowable connecting elements electrically connected to said first array of frictional connecting elements; and

a second connector half, said second connector half having first and second surfaces, said first surface having an array of mounting elements thereon for electrical and mechanical connection to the array of fusible elements on the component reflowable mating elements already on said component, said mounting elements substantially devoid of solder mass of a volume sufficient for reflowing said second connector half to the component, said second surface having a second array of frictional connecting elements adapted to intermate with said first array of connecting elements, said mounting elements electrically connected to said second array of frictional connecting elements;



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wherein mating said frictional contacting elements of said first and second connector halves electrically connects said component to said substrate, said first and second frictional contacting elements constructed such that when mated there can still be at least some relative movement between the two along at least two axes to allow for differences in CTE between said component and said substrate to be absorbed.

- 34. (currently amended) The connector assembly according to claim 33, wherein said array of mounting elements on said second connector half is arranged to correspond to the array of fusible elements on the component relative movement be said two frictional contacting elements is along three axes.
- 35. (currently amended) The connector assembly according to claim 34, wherein each of said mounting elements on said second connector half is situated in a recesssaid relative movement is micro-motion.
- 36. (new) The electrical connector of claim 33, wherein said array of reflowable elements on said first connector half is an array of ball-type contacts.
- 37. (new) The electrical connector of claim 33, wherein said array of mounting elements on said second connector half is adapted to receive an array of ball-type contacts on the component.

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38. (new) The electrical connector of claim 33, wherein said array of reflowable elements on said first connector half is one of a column grid array, ceramic ball grid array, tab ball grid array, and plastic ball grid array.

39. (new) The electrical connector of claim 33, wherein each connecting element on said first connector half comprises two elongated members and each connecting element on said second connector half comprises one elongated member.

40. (new) An electrical connector assembly adapted for forming a mechanical and electrical connection between a substrate and a component having an array of fusible elements thereon, comprising:

a first connector half, said first connector half having first and second surfaces, said first surface having an array of reflowable elements thereon for electrical and mechanical connection to corresponding mating elements already on the substrate, said second surface having a first array of connecting elements, said reflowable elements electrically connected to said first array of connecting elements; and

a second connector half, said second connector half having first and second surfaces, said first surface having an array of mounting tail contacts thereon for electrical and mechanical connection to the array of fusible elements on the component, said second surface having a second array of connecting elements adapted to intermate with said first array of connecting elements, said mounting tail contacts electrically connected to said second array of connecting elements.

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41. (new) The electrical connector of claim 40 wherein said array of mounting tail contacts on said second connector half is arranged to correspond to the array of fusible elements on the component.

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42. (new) The electrical connector of claim 41 wherein each of said mounting tail contacts on said second connector half is situated in a recess.

43. (new) The electrical connector of claim 40, wherein said array of reflowable elements on said first connector half is an array of ball-type contacts.

44. (new) The electrical connector of claim 40, wherein said array of mounting elements on said second connector half is adapted to receive an array of ball-type contacts on the component.

- 45. (new) The electrical connector of claim 40, wherein said array of reflowable elements on said first connector half is one of a column grid array, ceramic ball grid array, tab ball grid array, and plastic ball grid array.
- 46. (new) The electrical connector of claim 40, wherein each connecting element on said first connector half comprises two elongated members and each connecting element on said second connector half comprises one elongated member.